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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/13/2001

Shoji Kodama

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EXAMINER

BLAIR, DOUGLAS B

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,337

Applicant(s)

KODAMA, SHOJI

Examiner

Douglas B. Blair

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. Claims 1-36 are currently pending. The rejection of claims 1, 15, 20, 27 and 36 has been withdrawn in view of the applicant's arguments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-36 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,601,101 to Lee et al..

4. As to claim 1, Lee teaches a system for optimizing data access, comprising: a file server capable of communicating with one or more clients (col. 17, lines 23-44); and a plurality of storage elements organized into pairs for storing a plurality of files, each pair having a master storage element and at least one mirrored storage element, and each mirrored storage element having a copy of data stored on the master storage elements wherein the file server maintains file information on where each of the plurality of files is stored on which pair of storage elements (col. 17, lines 23-44), and maintains access load information regarding each one of the pair of storage elements (col. 7, lines 35-58); and wherein when a client requests file information for a requested file from the file server, the file server determines which pair of storage elements has

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Art Unit: 2142

the requested file and further determines which of the storage elements within the pair of storage elements having the requested file is to be accessed based upon use of the storage system (col. 17, lines 23-44).

5. As to claim 2, Lee teaches a system according to claim 1 wherein the plurality of storage elements is a plurality of disk drives (col. 6, lines 39-60).

6. As to claim 3, Lee teaches a system according to claim 1 wherein the plurality of storage elements are stored on a single storage system (col. 6, lines 39-60).

7. As to claim 4, Lee teaches a system according to claim 1 wherein the plurality of storage elements are stored on one or more storage systems (col. 6, lines 39-60).

8. As to claim 5, Lee teaches a system according to claim 1 further comprising: a plurality of host computers (col. 6, lines 39-60); wherein the file server resides on one of the plurality of host computers (col. 6, lines 39-60); and wherein the one or more clients reside on remaining ones of the plurality of host computers (col. 6, lines 39-60).

9. As to claim 6, Lee teaches a system according to claim 1 further comprising: a sync daemon configured to synchronize data stored on each pair of storage elements (col. 17, line 45- col. 18, line 21).

10. As to claim 7, Lee teaches a system according to claim 1 wherein the master storage element and the one or more mirrored storage elements within a pair are stored on a single storage system (col. 6, lines 39-60).

11. As to claim 8, Lee teaches a system according to claim 1 wherein the master storage element and the one or more mirrored storage elements within a pair are stored on one or more storage systems (col. 6, lines 39-60).

BEST AVAILABLE COPY

Art Unit: 2142

12. As to claim 9, Lee teaches a system according to claim 8 wherein if it is determined that a mirrored storage element is to be accessed for the requested file and the mirrored storage element which is to be accessed contains a latest copy of data for the requested file stored on the requested file from the corresponding master storage element, the client directly retrieves the mirrored storage element (col. 12, line 57-col. 13, line 54).

13. As to claim 10, Lee teaches a system according to claim 8 wherein if it is determined that a mirrored storage element is to be accessed for the requested file and the minored storage element which is to be accessed does not contain a latest copy of data for the requested file stored on the corresponding master storage element, the latest copy of data for the requested file stored on the corresponding master storage element is retrieved from the corresponding master storage element and then forwarded to the client (col. 12, line 57-col. 13, line 54).

14. As to claim 11, Lee teaches a system according to claim 1 wherein the file information on where each of the plurality of files is stored on which pair of storage elements includes file allocation lists (col. 17, line 45-col. 18, line 21).

15. As to claim 12, Lee teaches a system according to claim 1 wherein when determining which of the storage elements within the pair of storage elements having the requested file is to be accessed, consideration is given to ensure that all the storage elements within the pair of storage elements having the requested file are substantially accessed in a balanced manner (col. 17, line 45-col. 18, line 21).

16. As to claim 13, Lee teaches a system according to claim 1 wherein upon determining which of the storage elements within the pair of storage elements having the requested file is to be accessed, the file server forwards information relating to the determination to the client

BEST AVAILABLE COPY

Art Unit: 2142

thereby allowing the client to retrieve the requested file from the determined storage element (col. 12, line 57-col. 13, line 54).

17. As to claim 14, Lee teaches a system according to claim 13 wherein upon forwarding the information relating to the determination to the client, the file server updates the access load information to ensure accurate monitoring of access balance of the pairs (col. 12, line 57-col. 13, line 54).

18. As to claims 15-36, they feature the same limitations as claims 1-14 and are rejected for the same reasons claims 1-14.

Response to Arguments

19. Applicant's arguments filed 8/10/2005 have been fully considered but they are not persuasive. Nothing in the cited portion of Lee appears to suggest the idea of retrieving file information from one or the other of paired storage elements based upon use of the storage system, based upon information regarding access loading of various disk drives. The cited portion of Lee explicitly mentions maintaining access load information (col. 7, lines 54-58).

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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Art Unit: 2142


the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is 571-272-3893. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Blair
DBB


ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER

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